

IN THE CLAIMS:

Please amend the claims to read as follows:

1. (Currently amended) A network switching system wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between ~~an~~ a first extension node and ~~the other~~ a second extension node, wherein at least one said extension node comprises:

a control/memory unit for storing physical identifiers and telephone numbers of said gateway node and extension nodes and for controlling said network;

an asynchronous interface, for selecting said extension node and controlling a switching timing, connected with said control/memory unit;

a rate conversion unit for converting a data rate of said stream data in said network into that in said outside line, or for converting the other way around a data rate of stream data in said outside line into that of said network switching system; and

an isochronous interface, for transmitting and receiving said stream data, connected with said rate conversion unit.

2. (Currently amended) The network switching system according to Claim 1, wherein at least one said extension node further comprises:

a microphone for inputting said stream data;
a speaker for outputting said stream data; and
a codec, for encoding and decoding said stream data, connected with said microphone,
said speaker and said rate conversion unit for encoding and decoding said stream data.

3. (Currently amended) The network switching system according to Claim 1, wherein at least one said extension node further comprises:

a stream data take-in unit, for storing said stream data, connected with said rate conversion unit; and

a stream data processing unit, for processing said stream data, connected with said stream data take-in unit.

Al 9 4. (Original) The network switching system according to Claim 1, wherein said asynchronous interface and said isochronous interface are connected with a bus manager which controls said asynchronous interface, said isochronous interface, said control/memory unit, and said rate conversion unit.

5. (Currently amended) A gateway ~~which comprises~~, comprising:

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a first switching unit for controlling extension nodes connected with a serial bus for isochronous transfer, ~~and~~ ; and

a second switching unit for exchanging stream data between an outside line and said extension nodes,

wherein:

said first switching unit comprises a bus manager connected with an asynchronous interface and an isochronous interface; and

said second switching unit comprises a line manager connected with a codec and a control/memory unit,

~~wherein~~ said line manager exchanges said stream data between said outside line and at least one of said extension nodes, according to a request from said bus manager, ~~and~~

said bus manager manages a call-in to said extension node and a call-out from said extension node, and

said at least one extension node is uniquely identified by a telephone number.

6. (Currently amended) An information terminal ~~which comprises~~ comprising:

a telephone for transmitting and receiving a telephone signal through a serial ~~bus~~, bus;

a television (TV) set for receiving a TV signal through said serial ~~bus~~, bus; and

a bus manager for controlling said serial bus, wherein said bus manager comprises two pairs of an ~~asynchronous~~ asynchronous interface and an isochronous interface for said telephone signal and said TV signal, respectively.

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7. (Currently amended) A gateway ~~which comprises~~ comprising:

a telephone ~~gate-way~~ and gateway;

a TV gateway; and ~~which are connected with~~

a bus manager connected to said telephone gateway and said TV gateway,

wherein:

said telephone gateway transfers a telephone signal from a public switched telephone network to a serial bus, and transfers the other way around a telephone signal from said serial bus to said public switched telephone network, said telephone gateway having a capacity to interconnect to at least one telephone terminal via said serial bus, wherein the interconnect is controlled by a telephone number identification of each of said at least one telephone terminal;

said TV gateway receives a TV signal from a TV line, and transfers said TV signal to said bus manager; and

said bus manager comprises two pairs of an asynchronous interface and ~~a~~ an isochronous interface for transferring said telephone signal and said TV signal, respectively.

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8. (Currently amended) A call-in signal processing method for a network switching system using asynchronous and isochronous transfer modes, wherein stream data transferred on a serial bus are exchanged through a gateway between an outside line and an extension node, or between ~~an~~ a first extension node and ~~the other~~ a second extension node, ~~which comprises the steps of:~~ said method comprising:

~~selecting at said gateway~~ selecting, at said gateway, which of an automatic transfer by a number display, a global call-in, or a manual call-in on the basis of setup data;

calling one or more extension nodes;

securing one or more isochronous channels on the basis of responses from said extension nodes;

allowing said extension nodes to start ~~talking~~ exchanging said stream data;

sending simultaneously a call status of a station of which call status is changed to all the extension nodes connected with said serial bus.

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9. (Currently amended) A call-out signal processing method for a network switching system using asynchronous and isochronous transfer modes, wherein stream data transferred on a serial bus ~~are~~ is exchanged through a gateway between an outside line and an extension node, or between ~~an~~ a first extension node and ~~the other~~ a second extension node, ~~which comprises the steps of~~ said method comprising:

receiving₁ at said gateway₁ a call-out from ~~said~~ an extension node;

confirming₁ at said gateway₁ a call status of a call object;

securing an isochronous channel for transmission;

sending said call status to all the extension nodes connected to said

gateway;

securing an isochronous channel for reception;

A19 allowing said call object to start ~~taking~~ exchanging said stream data, when said call object has responded, while sending, to said extension node which carried out said call-out, ~~such~~ a call status that indicates that said call object does not respond, when said call object has not responded;

releasing said isochronous channels for transmission and reception, when detecting an on-hook of said extension node which has made said call-out; and

sending said call status to all the extension nodes connected to said gateway.

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10. (New) The network switching system of claim 1, wherein each of said first extension node and said second extension node is uniquely identified by a telephone number.

11. (New) The network switching system of claim 1, wherein said serial bus comprises an IEEE 1394 data bus.
